

CLAIMS

1. A mobile communication system for transmitting same
information to a mobile station via a plurality of cells,
5 wherein:

the mobile station is configured to determine whether to
perform soft combining or selective combining on the same
information received, based on receiving method selection
information for receiving the same information via the
10 plurality of cells.

2. A mobile communication system for transmitting same
information to a mobile station via a plurality of cells,
wherein:

15 the mobile station is configured to determine whether to
perform soft combining or selective combining, or not to perform
combining processing on the same information received, based
on receiving method selection information for receiving the
same information via the plurality of cells.

20

3. A mobile station comprising:

a receiving method selection information acquiring unit
configured to acquire receiving method selection information
for receiving same information transmitted via a plurality of
25 cells; and

a determining unit configured to determine whether to
perform soft combining or selective combining on the same
information received, based on the receiving method selection
information.

4. The mobile station as set forth in claim 3, wherein the determining unit is configured to determine whether to perform soft combining or selective combining, or not to perform combining processing on the received same information, based on the receiving method selection information.

5. The mobile station as set forth in claim 3, wherein:
the receiving method selection information acquiring unit is configured to acquire receiving method instruction information showing soft combining or selective combining from a network or a base transceiver station; and
the determining unit is configured to perform the determination based on the receiving method instruction information.

6. The mobile station as set forth in claim 3, wherein:
the receiving method selection information acquiring unit is configured to receive, as the receiving method selection information, transmission timing information on the plurality of cells from the plurality of cells, respectively;

the mobile station further comprise a transmission timing difference measuring unit configured to measure a transmission timing difference between the plurality of cells, based on the received transmission timing information; and

the determining unit is configured to perform the determination based on the transmission timing difference.

7. The mobile station as set forth in claim 3, wherein:

the receiving method selection information acquiring unit is configured to receive, as the receiving method selection information, a transmission timing difference between the plurality of cells from a network or a base transceiver station;

5 and

the determining unit is configured to perform the determination based on the transmission timing difference.

8. The mobile communication system as set forth in claim 1,
10 wherein a radio network controller provides, as the receiving method selection information, control information including information as to whether broadcast service or multicast service can be provided or not in a neighboring cell of a current cell in which the mobile station is located.

15

9. A radio network controller for use in a mobile communication system for transmitting same information to a mobile station via a plurality of cells, comprising:

a determining unit configured to determine whether
20 broadcast service or multicast service can be provided or not in a neighboring cell of a current cell in which the mobile station is located; and

a notifying unit configured to provide control information including a result of the determination, as
25 receiving method selection information for receiving the same information at the mobile station.

10. The radio network controller as set forth in claim 9, wherein the notifying unit is configured to provide, as the

receiving method selection information, only the control information on the neighboring cell in which broadcast service or multicast service can be provided.

5 11. The radio network controller as set forth in claim 9, wherein the control information includes channel information on a radio channel used in the neighboring cell.

12. The radio network controller as set forth in claim 9,
10 wherein the notifying unit is configured to transmit, as the receiving method selection information, a difference between a transmission timing in the neighboring cell in which broadcast service or multicast service can be provided and a transmission timing in the current cell.

15

13. The radio network controller as set forth in claim 9, further comprising a receiving method instructing unit configured to provide an instruction on whether to perform soft combining or selective combining on the same information
20 received at the mobile station, based on the receiving method selection information.

14. The mobile station as set forth in claim 3, wherein:
the receiving method selection information acquiring
25 unit is configured to acquire, as the receiving method selection information, control information including information as to whether broadcast service or multicast service can be provided or not in a neighboring cell of a current cell in which the mobile station is located; and

the determining unit is configured to perform the determination based on the control information.

15. The mobile station as set forth in claim 14, wherein the
5 control information includes channel information on a radio channel used in the neighboring cell.

16. The mobile station as set forth in claim 14, wherein:
the receiving method selection information acquiring
10 unit is configured to acquire, as the receiving method selection information, a difference between a transmission timing in the neighboring cell in which broadcast service or multicast service can be provided and a transmission timing in the current cell; and

15 the determining unit is configured to perform the determination based on the control information and the transmission timing difference.

17. The mobile station as set forth in claim 14, wherein the
20 determining unit is configured to perform the determination for the same information received from the neighboring cell in which broadcast service or multicast service can be provided.

18. The mobile station as set forth in claim 7, further
25 comprising:

a storage unit configured to associate and store the transmission timing differences and combining methods for the same information; wherein,

the determining unit is configured to perform the

determination based on the combining method associated with the received transmission timing difference.

19. The mobile station as set forth in claim 7, further comprising:

a storage unit configured to associate and store the transmission timing differences, processing capabilities of the mobile station, and combining methods for the same information; wherein,

10 the determining unit is configured to perform the determination based on the combining method associated with the received transmission timing difference and the processing capability of the mobile station.

15 20. The mobile station as set forth in claim 7, wherein the determining unit is configured to determine that soft combining be performed on the received same information, by using all predetermined reliability information corresponding to reception qualities of radio channels used in the plurality of
20 cells, when the received transmission timing difference has a value within a first range.

21. The mobile station as set forth in claim 7, wherein the determining unit is configured to determine that selective
25 combining be performed on the received same information, by comparing part of predetermined reliability information corresponding to reception qualities of radio channels used in the plurality of cells, when the received transmission timing difference has a value within a second range.

22. A radio network controller for use in a mobile communication system for transmitting same information to a mobile station via a plurality of cells, comprising:

5 a receiving method instructing unit configured to provide an instruction on whether to perform soft combining or selective combining on the same information received at the mobile station, based on a transmission timing difference between the plurality of cells.

10

23. The radio network controller as set forth in claim 22, wherein the receiving method instructing unit is configured to provide the instruction based on the transmission timing difference between the plurality of cells and a processing
15 capability of the mobile station.